

Virtual Fixturing

Claim :

1: Using multiple probes , { each individual probe is attached to a vertical threaded rod (which rotates 360 degrees at the base , and the base is attached to a horizontal threaded rod ,both rods are set on top of a pivot (which rotates assembly 360 degrees) ,the pivot is attached to another threaded rod in a base plate ; by using described process (steps A – D) } enables one fixture to locate every possible component /part for Inspection without changing fixtures or fixture components , {within maximum travel of base plate size} .

Process :

A : By turning knob at the top of vertical threaded rod enables infinite location of probe within maximum travel of “ Z “ axis .

B : By turning knob at end of horizontal threaded rod enables infinite location of probe within maximum travel of “ X “ or “ Y “ axis

C : By turning knob at the end of threaded rod in base plate enables infinite location of probe within maximum travel of “ Y “ or “ X “ axis .

D : By rotating pivot enables infinite location of probe in Angular location or “ C “ axis .

Claim 2 : Having all threaded rods geared to electric servo motors and controlled by computer numerical control .Enables the same infinite location of each probe , within maximum travel , with faster accurate placement of probes .